

2018-06-20

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<http://hdl.handle.net/10026.1/11803>

International Journal of Financial Studies

MDPI

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Article

Lifting the Lid on Financial Inclusion: Evidence from Emerging Economies

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Received: 6 January 2018; Accepted: 14 June 2018; Published: 20 June 2018



Abstract: Financial inclusion has become a subject of growing interest for academics, professionals, and policy-makers in recent times. Researchers stress the importance of financial inclusion and highlight the significant role of financial institutions, such as banks, in promoting financial inclusion. Therefore, it is imperative to analyse the role and commitment of banks in promoting financial inclusion, especially those financial institutions (i.e., Islamic banks) which came into existence to promote socio-economic justice through redistribution of wealth in society. The study is built on the argument that Islamic banking business model is based on intangible sources i.e., *Shari'ah* law and such sources are exploited to create value i.e., stability, profitability and financial inclusion. The empirical analysis support the hypothesis that Islamic banks utilize various tangible and non-tangible resources to promote financial inclusion. Hence, Islamic banks are serving as the ultimate source of financial inclusion in the society.

Keywords: financial inclusion; emerging economies; Bangladesh; Pakistan; intellectual capital; *qard-al-hassanah*; Islamic banking

1. Introduction

Financial inclusion has become a subject of growing interest for academics, professionals, and policy-makers in recent times. The terms “financial inclusion” and “financial exclusion” are commonly used in the literature where the latter refers “to those processes that prevent poor and disadvantaged social groups from gaining access to the financial system” (Leyshon and Thrift 1995). In contrast, the former focuses on the ways to promote financial inclusion. Financial inclusion, as argued by Rangarajan (2008), is the “process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost”. Following Sarma (2012, p. 3) financial inclusion in this paper refers to “a process that ensures the ease of access, availability and usage of the formal financial system for all members of an economy”.

Financial service providers, generally referred to as banks, can be largely categorised into conventional and Islamic banks based on their banking business model. Islamic banking and finance entered in the mainstream financial services industry about half a century ago (Nawaz 2017a). Since then the industry has developed itself to become one of the fastest growing segments in the field of finance (Khan and Bhatti 2008; Nawaz 2017c). Promotion of socio-economic justice through redistribution of wealth is one of the most salient features of the Islamic economic system (Nawaz 2015). Islamic law, or *Shari'ah*, which guides Islamic economics, implement this through the financial institutions known as Islamic banks. The Islamic banking systems strives to promote and achieve financial inclusion among the society by offering interest-free banking and risk-sharing financing solutions (Nawaz 2017d). *Shari'ah*-compliant microfinance is one of the most popular financial instruments used by Islamic banks to enhance access to finance. Within the microfinance suite exists

benevolent loans (or *qard-al-hassanah*), which are considered to be the ultimate financial instrument to promote financial inclusion, especially for the weaker sections of the society who do not have direct access to the financial institutions. This aspect of Islamic banking is empirically examined in this paper.

Since the beginning of the new millennium, the Islamic finance industry has maintained a steady, yet robust, growth and has outperformed its conventional rivals. The industry faced its first test since the inception during the 2007–2008 financial crisis, which led to the collapse of many leading conventional banks. The efficiency and stability of Islamic finance during the recent global financial crisis proved the soundness of the Islamic way of banking and urged researchers to study the underpinning of the Islamic banking business model (Ahmed 2008; Beck et al. 2013; Khan and Bhatti 2008; Nawaz 2016a).

Islamic banking is based on the ideology of *Shari'ah*, known as Islamic law, which guides social and economic aspects of the Islamic religion. Under Islamic jurisprudence, Islamic banks are not allowed to charge interest (or *riba*), invest in illicit activities (i.e., alcohol, tobacco, armaments, or pornography), or encourage/promote *gharaar* (uncertainty). Furthermore, Islamic banks, in theory, do not transfer risk; rather, risk is shared between the borrower and the lender. Islamic banks use financial instruments, such as *musharakah*, to form a joint venture-based profit and loss sharing principle (for further details see (Iqbal and Mirakhor 2011; Khan 2010)). Furthermore, Islamic banks are co-governed by the religious scholars to monitor the *Shari'ah* compliance of all their products and services (Nawaz 2017a). Hence, the Islamic banking business model is based on the ethical values derived from Islamic *Shari'ah* law, which includes monitoring the actions of the managers closely not only to safeguard the stakeholders' interest, but to reduce the moral hazard and ultimately promote financial inclusion. The key features of the Islamic banking business model suggest that Islamic banking is based on intangible sources (i.e., *Shari'ah* law), which are exploited to create value, i.e., stability, profitability, and financial inclusion.

The concept of intangibility is at the core of the phenomenon of intellectual capital (IC), which has been argued to be a source of competitive advantage for financial services sector in today's knowledge intensive area (see, inter alia, Cabrita and Bontis 2008; Kamath 2007; Nawaz 2018, 2017b). Like any other knowledge-intensive sector, the banking industry, in general, and Islamic banks, in particular, are dependent on their intellectual capital resources to create value (Nawaz and Goj 2013). However, there is a lack of empirical evidence in examining this relationship, particularly in the context of Islamic banking and finance. This research aims to fill in this chasm.

Against this background, the main purpose of this paper is to empirically examine the sources of competitive advantage for Islamic banks and how they relate to the ultimate objective of Islamic banking: financial inclusion.

This paper is organised as follows; Section 2 provides the background of the current research while deriving the research hypotheses. The research methodology and research variables are defined in Section 3. Section 4 presents the results of the statistical analysis, whereas the final part concludes the paper.

2. Background and Development of Hypotheses

2.1. Intellectual Capital

According to Wriston (1993) "the new source of wealth is not material, it is information, knowledge applied to work to create value (p. 1)". Consent with this argument, Stewart and Ruckdeschel (1998) suggest that both knowledge (i.e., intangible) and physical (i.e., tangible) resources are essential to create value and term this combination, the intellectual capital (IC). IC is further divided into human and organizational capital, where the former refers to the human intellect, which generates new ideas and the later refers to the supporting mechanism, which helps human capital to convert those ideas into tangible products (Nawaz 2017b).

Previous research suggests that IC is the main driver of value creation in the banking industry (Cabrita and Bontis 2008; Kamath 2007; Nawaz 2017a). Since Islamic banks are mainly involved in relationship banking and their income sources (depositors and borrowers) are different from the conventional banks, such banks are expected to create value by exploiting various resources. Value in the present paper refers to promotion of financial inclusion. Accordingly, it is expected that IC resources relate positively with financial inclusion.

Hypothesis 1. *There is a significant positive relationship between intellectual capital and financial inclusion.*

2.1.1. Human Capital and Financial Inclusion

The combination of factors possessed by a firm's individuals and the collective workforce is referred to as human intellectual capital. This encompasses knowledge, skills, and technical ability; personal traits, such as intelligence, energy, attitude, reliability, and commitment; the ability to learn, including aptitude, imagination, and creativity; and the desire to share information, participate in a team, and focus on the goals of the firm (Stewart and Ruckdeschel 1998). Human capital is the central component of IC and its extraction creates firm value.

However, it is to be noted that an individual can rent them out to a business or an organisation, which can be exploited to create value for the firm (Stewart and Ruckdeschel 1998). Furthermore, the ownership of these attributes cannot be transferred, hence, they stay with the bearer. Simply stated, when an individual leaves the workplace these attributes leave with the individual; hence, they are not owned by the business.

Human capital is highly significant to Islamic banking as the whole concept of Islamic banking business model is based on divine law i.e., the *Shari'ah* law, which requires higher level of intellectuality to interpret and implement *Shari'ah* in practice. Therefore, employees of an Islamic bank are expected to have good knowledge of banking and finance along with understanding of *Shari'ah* law. Hence, value in Islamic banking is created through a combination of conventional and *Shari'ah* knowledge. Therefore, it is expected that higher the level of human capital efficiency a bank has higher would be its value creation capability, measure by financial inclusion.

Hypothesis 2. *There is a significant positive relationship between human capital and financial inclusion.*

2.1.2. Organisational Capital and Financial Inclusion

The second main component of IC is the organisational or structural capital. Human capital cannot work alone and needs some sort of supporting mechanism, which is provided by organisational or structural capital in the form of an office building, working desks, organisational structure (i.e., vision, mission, and strategy), software, and copyright agreements, etc. To clarify the difference between human and organisational capital resources, individual attributes that leave the organisation with individuals at the end of a business day are human capital and whatever stays back in the tangible or intangible form within the organisation is largely defined as organisational capital (Cabrita and Bontis 2008; Nawaz 2016a; Nawaz and Goj 2013). Organisational capital assists human capital in the value creation process.

Since Islamic banks strive for greater financial inclusion and follow a different ideology compared to their conventional rivals, they pursue a different mission and follow a different vision as a consequence; hence, they must adopt different organisational or structural capital to create value (Nawaz 2017b). Accordingly, it is expected that organisational capital, possessed by an Islamic bank, will relate positively with financial inclusion.

Hypothesis 3. *There is a significant positive relationship between organisational capital and financial inclusion.*

2.1.3. Physical and Financial Capital and Financial Inclusion

Organisations cannot function without 'brains', which resides within the human capital (Nawaz 2017e, 2016b) and human capital cannot work effectively without any supporting mechanism, i.e., structural/organisational capital. However, to afford both the said capital resources a firm needs finances (Nawaz 2013a, 2013b). Hence, physical and financial capital is equally important for value creation (Pulic 2000). Accordingly, financial capital is expected to be one the main sources of financial inclusion in Islamic banking.

Hypothesis 4. *There is a significant positive relationship between financial capital and financial inclusion.*

3. Research Design

3.1. Sample

The sample consists of 18 Islamic banks operating in Bangladesh and Pakistan. These two countries are selected given their reputation and increased engagement in promoting financial inclusion through micro financing (Ahmed 2008; Akhter et al. 2009; Mannan 2007). The structure and functioning of the financial services sectors in Bangladesh and Pakistan were understood based on the information provided by the central banks of the respective countries. The available data on the central banks also outlined number of banks operating in the country along with their business concentration i.e., bank type. From this data, a list of Islamic banks operating in each country was compiled to collect the financial data. At this stage, annual reports and financial statements for the selected banks were collected either from the individual bank's website or by searching on Google. Annual reports are used as main source for data collection because these reports are more authentic and are audited therefore; the data collected through these reports is highly reliable and largely free from error. The missing observations are collected through various resources. The final sample comprises of 18 banks (9 from Bangladesh and 9 from Pakistan). The data was collected for four years 2013–2016 (72 firm-years observations from the same banks).

3.2. Dependent Variable

According to Demirguc-Kunt et al. (2014), Islamic banks mainly use *Shari'ah*-compliant microfinancing to promote SMEs. However, benevolent loans (*qard-al-hassanah*), accumulated through *zakat* (religious levy), *sadaqah* (charity), and *waqf* (endowment) are the ultimate sources of financial inclusion for the disadvantaged who are unable to offer any collateral, hence, are financially excluded (Mohieldin et al. 2012; Montgomery and Weiss 2011). Financial inclusion is the dependent variable in this study. Financial inclusion is the dependent variable in this study. Total dollar amount (transformed using natural logarithm) channeled through benevolent loans is used as a proxy to measure financial inclusion. In the absence of any primary data, this proxy is argued to be a suitable measure of financial inclusion promoted by the sampled Islamic banks.

3.3. Independent Variables

As stated earlier, value in Islamic banking is created through various tangible and intangible sources, combined as intellectual capital (IC). Pulic (2000) developed the value-added intellectual coefficient (VAIC) methodology to capture IC when using secondary data. Since this paper is based on secondary information derived from annual and financial reports of sampled banks, the use of the VAIC methodology is justified. Following previous studies (see Kamath 2007; Nawaz 2017b, 2016b; Pulic 2000), the same methodology is adopted to capture the value of IC in the sampled Islamic banks. VAIC consists of three sub-components, namely human capital efficiency (HCE), structural capital efficiency (SCE), and capital employed efficiency (CEE). The difference between expenses and revenue is value-added. HCE is the ratio of VA to total human capital expenditure. SCE is the ratio of structural capital

expenditure to VA, while CEE is the ratio of VA to the book value of total assets. This paper also controls for the size of the bank for its potential impact.

4. Empirical Results

4.1. Descriptive Statistics

Table 1 presents the descriptive statistics related to the research variables used in this study. The minimum and maximum value of financial inclusion (proxied as the log of the total dollar amount channelled through benevolent loans) are 0.29 and 1.24, respectively, with a mean of 0.80, which indicates that, on average, the sampled banks remained involved in financial inclusion activities during the study period. The mean of 4.65 for the value-added intellectual coefficient (VAIC) suggests that, during the study period, the sample Islamic banks were generally efficient in promoting financial inclusion by exploiting their intellectual capital resources. Descriptive statistics related to the segregated independent variables indicate that HCE, SCE, and CEE all have positive means of 3.29, 1.23, and 0.38, respectively.

Table 1. Descriptive statistics.

Stats	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis
LnFI	0.798	0.282	0.292	1.237	−1.190	3.369
VAIC	4.654	3.095	−3.250	11.030	−0.165	3.927
HCE	3.294	2.622	−2.704	9.410	0.177	3.817
SCE	1.232	0.698	−0.039	3.187	0.575	4.462
CEE	0.381	0.156	−0.094	0.488	0.059	2.487
Bank-size	14.361	1.557	10.787	16.836	−0.674	2.736

Table 2 presents the results based on Pearson's correlation. It can be seen that the variable of interest, VAIC, and its subcomponents, are positively correlated with financial inclusion measures. VIF results presented in the second column of Table 2 suggest no multicollinearity exists between the research variables.

Table 2. Correlation analysis.

	VIF	LnFI	VAIC	HCE	SCE	CEE
VAIC	1.79	0.2893				
HCE	1.64	0.3089	0.9185			
SCE	1.52	0.1711	0.0344	0.0759		
CEE	1.49	0.3810	0.5179	0.5577	0.2009	
Bank-size	1.34	0.4762	0.3694	0.4008	0.1989	0.4516

4.2. Regression Analysis

The following regression model is used to measure the relationship between IC and financial inclusion promoted by Islamic banks:

$$\text{LnFI} = \alpha_0 + \beta_1\text{VAIC} + \beta_2\text{HCE} + \beta_3\text{SCE} + \beta_4\text{CEE} + \beta_5\text{Bank-size} + \varepsilon$$

where LnFI refers to financial inclusion (measured as the log of the total dollar amount channelled through the benevolent loans), VAIC is the sum of HCE, SCE, and CEE, and bank size refers to total assets held by a bank. The model is repeated four times, referring to as Model 1, Model 2, Model 3, and Model 4, where the independent variables change in each model.

Table 3 presents the results from the regression models. The adjusted R^2 for each of the four models ranges between 28% and 35% for the study period for the combined four-year period. Model 1

is the main regression model, which examines the association between financial inclusion measure and VAIC. The value-added intellectual coefficient (VAIC) is found to have a significant ($p < 0.05$) positive relationship with financial inclusion for the pooled data. Thus, hypothesis 1 is supported. Similarly, bank size is positively related to financial inclusion in the predicted direction at the 1% significance level.

Table 3. Regression results.

Models	Model (1)	Model (2)	Model (3)	Model (4)
Observations	72	72	72	72
VAIC	0.0147 **			
Banks-size	0.0893 ***	0.0876 ***	0.0987 ***	0.0788 ***
HCE		0.0191 ***		
SCE			0.0211	
CEE				0.597 ***
Constant	−0.378 *	−0.350 *	−0.485 **	−0.232
Adj. R^2	0.271	0.275	0.261	0.351

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

In addition to the main model, three models are developed to measure the segregated impact of IC on financial inclusion efforts of Islamic banks. In Models 2, 3, and 4, the main independent variables have been changed, but the control variable remains unchanged. The results from Model 2 are reported in the third column of Table 3, which indicates a significant positive relationship at the 1% level between human capital efficiency and the financial inclusion measure. Thus, hypothesis 2 is supported. The findings suggest that human capital is the main driver of financial inclusion. These findings are consistent with that of [Mavridis and Kyrmizoglou \(2005\)](#) in Greece, and [Kamath \(2007\)](#) in India, and [Nawaz \(2016b\)](#), who regarded human capital as the main value driver in the banking industry. Equally, these findings are consistent with the earlier research conducted in the context of Islamic banking and finance (see [Nawaz 2017b](#)).

The results in Model 3, reported in the fourth column of Table 3, show no significant relationship between structural capital efficiency and financial inclusion. Hence, there is not enough statistical evidence to support hypothesis 3. Finally, the results of Model 4, reported in the fifth column of Table 3, are similar to that of Model 2, but with a slightly higher coefficient. The results suggest a significant positive relationship at the 1% level between employed capital efficiency and the financial inclusion proxy. Thus, hypothesis 4 is supported. In all the models, the control variable, i.e., bank size, is found to be positively associated with the financial inclusion measure.

5. Summary and Conclusions

This paper empirically examines the relationship between firm resources *viz.* human capital, organizational/structural capital and physical and financial capital, defined as intellectual capital (IC) and financial inclusion of 18 Islamic banks operating in emerging economies such as Bangladesh and Pakistan for four years 2013–2016 period, while controlling for bank size. Log of total dollar amount channeled through benevolent loans (*qard-al-hassanah*) is used as a proxy to measure financial inclusion. Overall, the results suggest that Islamic banks are heavily engaged in promoting financial inclusion to encourage social and economic fairness in the society. The results further indicate that IC resources especially, human and financial capital are the main sources of promoting financial inclusion in Islamic banks.

Consistent with the research objective, this study has examined the financial inclusion practices of Islamic banks operating in two emerging economies namely Bangladesh and Pakistan for the period of 2013–2016. Future research may replicate this study to perform a comparative analysis between Islamic and conventional banks in order to determine the financial inclusion practices of two divergent banking business models. Similarly, this research is based on the secondary data derived from annual reports

and financial statements. Future research may use primary data collected through interviews and or case study approach that may offer additional insights into the phenomenon of financial inclusion.

Acknowledgments: The author would like to thank the anonymous reviewers for their constructive comments that greatly contributed to improving the final version of the paper. The author would also like to thank the Editors for their generous comments and support during the review process. Finally, the author would also like to thank the Managing Editor of International Journal of Financial Studies (IJFS) for their submission invite and research grant to undertake this research project.

Conflicts of Interest: The author declares no conflict of interest.

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